

Case 3235

***Sclerocrinus* Jaekel, 1891 (Crinoidea, Cyrtocrinida): proposed precedence over *Gammarocrinites* Quenstedt, 1857**

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Abstract. The purpose of this application, under Articles 23.9.3 and 81.2.3 of the Code, is to conserve the generic name *Sclerocrinus* Jaekel, 1891 for a group of fossil (Upper Jurassic (Oxfordian)-Lower Cretaceous (Valanginian)) crinoids by giving it precedence over the name *Gammarocrinites* Quenstedt, 1857 whenever the two are considered to be synonyms. The two names have been used indiscriminately for the same taxon.

Keywords. Nomenclature; taxonomy; SCLEROCRINIDAE; *Sclerocrinus*; *Gammarocrinites*; *Gammarocrinites compressus*; *Sclerocrinus strambergensis*; fossil crinoids; Upper Jurassic-Lower Cretaceous; Europe.

1. In 1857 Quenstedt (p. 654) proposed the name *Gammarocrinites* for a group of small fossil crinoids and included the nominal species *Eugeniocrinites compressus* Goldfuss, 1829, *E. nutans* Goldfuss, 1829 and similar forms which are different from *E. caryophyllatus* Goldfuss, 1829. Although Quenstedt did not designate a type species for *Gammarocrinites*, de Loriol (1879, p. 209) was of the opinion that he had introduced *Gammarocrinites* for *Eugeniocrinus nutans* [sic]. In discussing the variability of *E. nutans*, de Loriol (1879, p. 209) considered *E. compressus* to be within the range of variation of *E. nutans* and thus conspecific with that species. Subsequently de Loriol (1882, p. 115) mentioned that Quenstedt had established the generic name *Gammarocrinites* for *Eugeniocrinus caryophyllatus*. Jaekel (1891, p. 626) considered *E. compressus* to be different from *E. nutans* on the basis of the granular surface. In his main and final work, Quenstedt (1873, p. 427) placed *E. compressus* in the genus *Eugeniocrinus* Agassiz, 1836 but *Gammarocrinites* was not mentioned. The extant and related species *Gymnocrinus richeri* Bourseau, Amézière-Cominardi & Roux, 1987 demonstrates that granularity is a variable character within a species of cyrtocrinid crinoids (Bourseau et al., 1991, p. 277).

2. In 1891 Jaekel (p. 621) established the genus *Sclerocrinus* mentioning *S. strambergensis* Jaekel, 1891 (p. 623) as a typical species and also (p. 602) established the genus *Cyrtocrinus*. He recognized the main differences from other cyrtocrinids (his 'holopocrinids') as a more spherical cup with a deep, broad aboral excavation, a shallow oral cavity and also flat articular brachial facets with only small muscular fields. Jaekel (1891, p. 622) mentioned the existence of many intermediates between the two genera. *Sclerocrinus* has the most massive crown of all cyrtocrinids. The oldest '*Sclerocrinus*' fossils with a granular surface, '*S. compressus*' from the Oxfordian (Late Jurassic), closely resemble granular specimens of *Cyrtocrinus nutans*

(see Hess & Spichiger, 2001). Rasmussen (1961, p. 217) treated *Sclerocrinus* as a valid genus and designated *S. strambergensis* as the type species.

3. Rasmussen (1978, p. T831), in the *Treatise on Invertebrate Paleontology*, treated *Sclerocrinus* as a junior synonym of *Gammarocrinites* (type species *Eugeniocrinites compressus* Goldfuss, 1829, p. 164). He thus followed Bather (1900, p. 197) who recorded *Sclerocrinus* as a junior synonym of *Gammarocrinites*. As explained in para. 2 above, *E. compressus* may be conspecific with *E. nutans* and separation at the generic level is not warranted. *Cyrtocrinus* is a well-defined and widely used name for an important group of crinoids, the Cyrtocrinida and it should therefore be preserved. The type species of *Sclerocrinus*, *S. strambergensis*, is clearly different from *E. nutans*.

4. In more recent literature both *Gammarocrinites* and *Sclerocrinus* have been used without considering the validity of these names. Gluchowski (1987), following the *Treatise* (Rasmussen, 1978), accepted *Gammarocrinites* Quenstedt, 1857 as a valid name for *E. compressus* as did Jäger (1980, p. 64) and Nicosia (1991, p. 396). However, Žitt (1974, p. 17; 1975, p. 115) and Pisera & Dzik (1979, p. 813) followed Arendt (1974, p. 101) in treating *Sclerocrinus* as a valid genus. In the interest of stability we propose that the name *Sclerocrinus* Jaekel, 1891 be given precedence over *Gammarocrinites* Quenstedt, 1857, whenever the two names are considered to be synonyms. Therefore, the case is referred to the Commission under Articles 23.9.3 and 81.2.3 of the Code.

5. The family name SCLEROCRINIDAE was established by Jaekel (1918, p. 75) and maintained in the *Treatise* (Rasmussen, 1978, p. T829) under Article 40. The nominal genera *Gammarocrinites* and *Cyrtocrinus* were included in this family in the *Treatise*.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the name *Sclerocrinus* Jaekel, 1891 precedence over the name *Gammarocrinites* Quenstedt, 1857, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Sclerocrinus* Jaekel, 1891 (gender: masculine), type species by subsequent designation by Rasmussen (1961) *S. strambergensis* Jaekel, 1891, with the endorsement that it is to be given precedence over the name *Gammarocrinites* Quenstedt, 1857 whenever the two names are considered to be synonyms;
 - (b) *Gammarocrinites* Quenstedt, 1857 (gender: masculine), type species by subsequent designation by Rasmussen (1978) *Eugeniocrinites compressus* Goldfuss, 1829, with the endorsement that it is not to be given priority over the name *Sclerocrinus* Jaekel, 1891 whenever the two names are considered to be synonyms;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *strambergensis* Jaekel, 1891, as published in the binomen *Sclerocrinus strambergensis* (specific name of the type species of *Sclerocrinus* Jaekel, 1891);
 - (b) *compressus* Goldfuss, 1829, as published in the binomen *Eugeniocrinites compressus* (specific name of the type species of *Gammarocrinites* Quenstedt, 1857).

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).